

DESCRIPTIVE RECORD OF TWO PLANTS ADDITIONAL  
TO THE FLORA OF AUSTRALIA, AND OCCURRING  
ALSO IN NEW SOUTH WALES,

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GENTIANA QUADRIFARIA.

Blume, Bijdr. 847 (1825).

Annual, minute, glabrous ; stem leafy, very short ; leaves sessile, roundish-ovate, somewhat pointed, very thinly margined ; flowers generally solitary and terminal, sessile or on very short stalks ; calyx cylindric-campanulate, to  $\frac{1}{3}$  or nearly  $\frac{1}{2}$  cleft in 5 or sometimes 4 lobes ; its tube rather pale, membranous, slightly angular ; its lobes ovate, or narrow-semilanceolar-ovate, thinly margined ; corolla twice as long as the calyx, outside greenish, inside blue or white ; its tube gradually widened upwards ; its lobes about half as long as the tube, nearly semilanceolar-ovate, with minute deltoid pointed entire or sometimes bifid lobules intervening ; stamens about as long as the tube of the corolla ; filaments filiform, dilated towards the bases ; anthers erect, narrow-ellipsoid, quite blunt, basifixed ; ovary attenuated into a short style ; fruit membranous, on a rather long stipes, ovate, compressed, at last deeply bivalved ; seeds very minute, pale-brownish, turgid-ovate ; testa subtle-streaked.

In the vicinity of the Genoa (W. Baeuerlen).

Height of whole plant, according to Australian specimens, 3 inches. Leaves  $\frac{1}{8}$ - $\frac{1}{3}$  inch long. Bracteoles none. Flowers  $\frac{1}{4}$  to hardly  $\frac{1}{2}$  inch long ; the lobule from each sinus of the corolla usually much shorter than the lobes, but sometimes fully half as long. Stamens adnate to the lower portion of the corolla. Anthers free, bursting longitudinally ; pollen yellow, consisting of smooth ellipsoid longitudinally dehiscent grains. Stigmata two,

almost oval, recurved. Fruit hardly  $\frac{1}{4}$  inch long; the stipes of nearly the same length. Seeds numerous, without any appendage.

This species approaches *G. aquatica*; it was hitherto known from Upper India, Ceylon, China and Java; it is the second Australian *Gentiana*, the only other being *G. saxosa*, which is very variable, as shown in my "Vegetation of the Chatham Islands," pp. 40 and 41 (1864), it assuming in our alps and in our lowlands various forms of no specific value, just as in New Zealand, the Auckland and Campbell Islands and in the remotest South of America. *G. quadriflora* has with us probably been often passed unnoticed; its extreme smallness and its external resemblance to some species of *Lobelia* tending to its eluding observation. In all probability it will yet be discovered in the Australian Alps, and in New England as a companion of *Polygala Sibirica*, *Thesium australe*, *Lysimachia Japonica*, and some other plants common to the cooler regions of Australia and of South Eastern Asia.

The specimens sent by Mr. Baerleren are all very small, and thus resemble much the *G. squarrosa*; indeed they come also very near the Linnean *G. aquatica*.

Incidentally may be here offered a few additional notes concerning Australian gentianeous plants. *Sebacia albidiflora* occurs at the entrance of the Barwon (J. Bracebridge Wilson); on the Wimmera (D. Sullivan); near Lake Bonney (Mrs. Dr. Wehl). *S. ovata* extends to the Upper Brisbane River (Dr. Prentice). *Erythraea australis* is on the coast-meadows of Port Phillip, not rarely reduced to a one-flowered state, sometimes attaining only  $1\frac{1}{2}$  inches in height. *Canscora diffusa* grows also on the Etheridge River (W. Armit), and near Trinity Bay (W. Sayer). The close affinity of *Limnanthemum*, particularly in its section *Villarsia*, to *Velleya*, has already been pointed out in the Journal of the Pharmac. Soc. of Vict., 1858, p. 145.

*Limnanthemum Indicum* has been found by Miss A. Edwards on the Richmond River; the leaves attain a circumference of three feet. *L. Gunnii* extends to New Zealand (Petrie), but has as yet not been noticed in the Australian Alps.

## JACKSONIA CLARKII, n. sp.

Almost glabrous; branchlets rather slender, conspicuously angular; flowers comparatively large; stalklets about half as long as the calyces; bracteoles near the middle of the stalklets; flower-buds almost blunt, minutely pointed; calyces divided to near the base, about as long as the corolla, the segments glabrous, except at the margin, soon deciduous; petals of nearly equal length; anthers ovate-roundish; style setaceous, glabrous, deciduous; fruit on a rather long stipes, lanceolar-elliptical, almost silky.

On the Upper Hastings River (Dr. Herm. Beckler); on the Upper Delegate River (Mr. A. Clarke).

Nearest allied to this plant is the *Jacksonia scoparia*, which however is always more or less silky, has much smaller flowers upwards acutely attenuated while in bud, the bracteoles nearer to the calyx, the latter never glabrous, but long or even permanently persistent, the anthers narrower, the style at least partially silky and not deciduous, and the fruit smaller.

*J. scoparia* is now also known from the Nepean River (Dr. Cox), Trial Bay (Bêche), Shoalhaven River (Weir).

*J. thesioides* has more recently been gathered on the Boyne River (A. Wentw. Watson), at Glenroy (Stafford), Goode Island (Powell), Cleveland Bay (H. Gulliver).

*J. nematoclada* occurs between the Murchison River and Shark's Bay (F. v. M.).

*J. odontoclada* grows also near the Lynd River (E. Palmer).

*J. Sternbergiana* attains on the Greenough and Irwin River, a height of 40 feet. Pastoral animals browse on the branchlets; wood of disagreeable odour. This species extends southward fully to the Serpentine River, northward to Port Gregory (F. v. M.).

*J. densiflora* was found by the writer also near the Serpentine River, where the calyces attain a length of  $\frac{3}{4}$  inch; the Hon. John Forrest collected it at Mount Samson.

*J. hakeoides* reaches the Arrowsmith River and Port Gregory (F. v. M.).

*J. pteroclada* was found by me on the Upper Irwin and Greenough River in a narrower state.

*J. racemosa* occurs near Israelite Bay (Miss Brooke), and near Fraser's Range (Dempster).

This is an apt moment for simultaneously giving publicity to another congener, discovered some years ago in Arnhem's Land, but left undescribed till now.

JACKSONIA FORRESTII, n. sp.

Grey-silky; branchlets thin, angular, nearly erect; flowers scattered along the upper part of the branchlets on very short stalklets; calyx persistent, deeply divided into almost equal lobes; style long-persistent, silky in its lower portion; fruit almost sessile within the calyx, oblique ovate-ellipsoid, rather turgid, conspicuously pointed, hardly longer than the calyx, generally one-seeded.

In the vicinity of the Humbert River (Alexander Forrest).

This new tropical species differs from *J. cupulifera* in stalklets much shorter than the calyx, in persistent calyx-lobes and style, in much smaller fruits not stipitate; from *J. rhadinoclada* already in silky vestiture, in more angular and not spreading branchlets, in not deciduous calyces, in somewhat longer and more pointed fruit; from *J. thesioides* in dense and close indument, in more slender branchlets, in more deeply divided calyces with ampler tube, and probably also in the color of the petals, those of our new species being as yet unknown; from *J. vernicosa* already in neither glabrous nor streaked nor viscid branchlets, in remoter bracts, in smaller and silky calyces with shorter tube, in less elongated style, and smaller bracteoles.

This seems also a favourable opportunity for recording the N.S.W. species which have been added to the lists of those published in the "Census" of Australian plants, and in its three supplements:—

*Hedraianthera porphyropetala* (F. v. M.)

*Atriplex conduplicata* (F. v. M.)

*Kochia lobostoma* (F. v. M.)

*K. spongiocarpa* (F. v. M.)

*Aizoon zygophylloides* (F. v. M.)

*Pultenaea mucronata* (F. v. M.)

*Templetonia aculeata* (Bentham)

*Neptunia monosperma* (F. v. M.)

*Acacia coriacea* (De Candolle)

*Acacia Murrayana* (F. v. M.)

*Agonis Scortechiniana* (F. v. M.)

*Eucalyptus Baileyana* (F. v. M.)

*Hydrocotyle Javanica* (Thunberg)

*Viscum angulatum* (Heyne)

*Grevillea Victorice* (F. v. M.)

*Hakea Macraena* (F. v. M.)

*Passiflora brachystephanea* (F. v. M.)

*Nertera reptans* (F. v. M.)

*Ethulia conyzoides* (Linné filius)

*Calotis anthemoides* (F. v. M.)

*Helipterum laeve* (Bentham)

*Ceratogyne obionoides* (Turczaninow)

*Spartothamnus puberulus* (F. v. M.)

*Najas major* (Allioni)

A few others have recently been described in the Proceedings of the Linnean Society of New South Wales.